PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	**FOR FURTHER ACTION** see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
OP/4-32696/USN		
International application No.	International filing date *(day/month/year)*	(Earliest) Priority Date *(day/month/year)*
PCT/EP 03/10725	26/09/2003	27/09/2002
Applicant		
NOVARTIS AG		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 7 sheets.

[X] It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

   a. With regard to the **language,** the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

   [ ] the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

   b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

   [X] contained in the international application in written form.

   [X] filed together with the international application in computer readable form.

   [ ] furnished subsequently to this Authority in written form.

   [ ] furnished subsequently to this Authority in computer readble form.

   [ ] the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

   [ ] the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. [X] **Certain claims were found unsearchable** (See Box I).

3. [ ] **Unity of invention is lacking** (see Box II).

4. With regard to the **title,**

   [X] the text is approved as submitted by the applicant.

   [ ] the text has been established by this Authority to read as follows:

5. With regard to the **abstract,**

   [X] the text is approved as submitted by the applicant.

   [ ] the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No. _____

   [ ] as suggested by the applicant.

   [ ] because the applicant failed to suggest a figure.

   [ ] because this figure better characterizes the invention.

   [ ] None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 03/10725

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61P27/02 A61K48/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

INSPEC, EPO-Internal, BIOSIS, MEDLINE, WPI Data, PAJ, PASCAL, EMBASE, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02 067971 A (BRAZZELL ROMULUS KIMBRO ;CAMPOCHIARO PETER ANTHONY (US); NOVARTIS) 6 September 2002 (2002-09-06) Gene therapy of retinal and choroidal diseases (e.g. neovascularization) using a viral vector encoding anti-angiogenic factors, such as endostatin, angiostatin, soluble VEGFR and the like. page 1-2 page 4 page 11-12 page 14 examples 1-9 --- -/--	1-5,9, 11,12

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
18 February 2004	04/03/2004

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Domingues, H

Form PCT/ISA/210 (second sheet) (July 1992)

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
X	CAMPOCHIARO PETER A: "Gene therapy for retinal and choroidal diseases." EXPERT OPINION ON BIOLOGICAL THERAPY. ENGLAND JUN 2002, vol. 2, no. 5, June 2002 (2002-06), pages 537-544, XP009025756 ISSN: 1471-2598 page 538 page 540-1 ---	1,6-8
X	DATABASE BIOSIS 'Online! BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 2002 DEMETRIADES A -M M ET AL: "Periocular Injection of an Adenoviral Vector Expressing the Extracellular Portion of Aascular Endothelial Growth Factor Receptor-1 (Adsflt.10) Inhibits Choroidal Neovascularization (CNV)." Database accession no. PREV200300165348 XP002269944 abstract & ARVO ANNUAL MEETING ABSTRACT SEARCH AND PROGRAM PLANNER, vol. 2002, 2002, page Abstract No. 3916 Annual Meeting of the Association For Research in Vision and Ophthalmology;Fort Lauderdale, Florida, USA; May 05-10, 2002 ---	1,6-8
X	DATABASE BIOSIS 'Online! BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 2002 GEHLBACH P L ET AL: "Periocular Adenovirus-mediated Delivery of Pigment Epithelium-derived Factor Inhibits Choroidal Neovascularization." Database accession no. PREV200300165678 XP002269945 abstract & ARVO ANNUAL MEETING ABSTRACT SEARCH AND PROGRAM PLANNER, vol. 2002, 2002, page Abstract No. 4595 Annual Meeting of the Association For Research in Vision and Ophthalmology;Fort Lauderdale, Florida, USA; May 05-10, 2002 --- -/--	1,6-8

International Application No
PCT/EP 03/10725

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
X	TAKAHASHI TADASHI ET AL: "Inhibition of experimental choroidal neovascularization by overexpression of tissue inhibitor of metalloproteinases-3 in retinal pigment epithelium cells" AMERICAN JOURNAL OF OPHTHALMOLOGY, vol. 130, no. 6, December 2000 (2000-12), pages 774-781, XP002269941 ISSN: 0002-9394 the whole document	1,6-8
X	LAI CHOOI-MAY ET AL: "Inhibition of angiogenesis by adenovirus-mediated sFlt-1 expression in a rat model of corneal neovascularization" HUMAN GENE THERAPY, vol. 12, no. 10, 1 July 2001 (2001-07-01), pages 1299-1310, XP002269942 ISSN: 1043-0342 the whole document	1,6-8
X	LAI C C ET AL: "Suppression of choroidal neovascularization by adeno-associated virus vector expressing angiostatin." INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE. UNITED STATES SEP 2001, vol. 42, no. 10, September 2001 (2001-09), pages 2401-2407, XP002269943 ISSN: 0146-0404 the whole document	1,6-8
Y	US 2002/114783 A1 (STOUT J TIMOTHY ET AL) 22 August 2002 (2002-08-22) Lentiviral vectors for use in gene therapy of retinal or choroidal diseases. Encode antiangiogenic factors. the whole document	1-12
Y	MORI KEISUKE ET AL: "Inhibition of choroidal neovascularization by intravenous injection of adenoviral vectors expressing secretable endostatin" AMERICAN JOURNAL OF PATHOLOGY, PHILADELPHIA, PA, US, vol. 159, no. 1, July 2001 (2001-07), pages 313-320, XP002205626 ISSN: 0002-9440 the whole document	1-12
E	WO 03 080648 A (CAMPOCHIARO PETER A ;HAUSWIRTH WILLIAM W (US); BERNS KENNETH I (US) 2 October 2003 (2003-10-02) the whole document	1-8

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/EP 03/10725

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 02067971 A	06-09-2002	WO 02067971 A2	06-09-2002
		US 2002183253 A1	05-12-2002
US 2002114783 A1	22-08-2002	US 2003082159 A1	01-05-2003
		AU 3405302 A	01-07-2002
		CA 2432301 A1	27-06-2002
		EP 1343532 A1	17-09-2003
		WO 0249677 A1	27-06-2002
WO 03080648 A	02-10-2003	WO 03080648 A2	02-10-2003